



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/795,825	03/08/2004	Morteza Cyrus Afghahi	13435US04	2778
23446	7590	03/16/2009	EXAMINER	
MCANDREWS HELD & MALLOY, LTD			WELLS, KENNETH B	
500 WEST MADISON STREET			ART UNIT	PAPER NUMBER
SUITE 3400			2816	
CHICAGO, IL 60661				
MAIL DATE DELIVERY MODE				
03/16/2009 PAPER				

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

*Ex parte* MORTEZA CYRUS AFGHAHI  
and ESIN TERZIOGLU

---

Appeal 2008-2836  
Application 10/795,825  
Technology Center 2800

---

Decided:<sup>1</sup> March 16, 2009

---

Before KENNETH W. HAIRSTON, JOHN A. JEFFERY,  
and ELENI MANTIS MERCADER, *Administrative Patent Judges*.

MANTIS MERCADER, *Administrative Patent Judge*.

DECISION ON REQUEST FOR REHEARING

---

<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

Appellants requested a rehearing of our decision dated September 11, 2008, wherein we affirmed the rejections of claims 1 and 5-8 under 35 U.S.C. § 102(b).

Appellants agree with the definition of a reference node as “a node having a voltage that is used as a point of reference,” however, Appellants disagree with the definition of a reference node as “a node holding a comparison voltage” because in *“a single-ended sense amplifier”* the input data voltage and the reference voltage cannot both be identified as reference voltages (Reh’g. Req. 2) (emphasis added). For further clarification, the Board adopted the terms “comparison voltage” in the context of a voltage being used in a comparison operation. Furthermore, Appellants’ argument is not commensurate in scope with the claim limitations. In other words, while Appellants emphasize the distinction of a reference node as it relates to *“a single-ended sense amplifier,”* Appellants did not claim a “single-ended sense amplifier.” We further note that while Appellants argue what does *not* constitute a reference node (Reh’g. Req. 2-4), Appellants do not indicate what *does* constitute a reference node. Nonetheless, Appellants’ Figure 10 and Specification pages 33-34 describe the reference node 1021 as a capacitive node (i.e., due to the added capacitance from transistors 1025 and 1026) having a data signal applied thereto. Thus, based on Appellants’ Specification, we accordingly interpreted either one of Pilo’s sense amplifier nodes 101 and 102 as shown in Figure 1, as a reference node, because each one stores respective signals MUXLAT and MUXLAT\* and the capacitor-connected transistors 57 and 56 add capacitance to each of the nodes 101 and 102, respectively. Thus, we

maintain that Pilo teaches a reference node serving as a reference voltage of the sense amplifier as claimed.

Appellants' argument that "the admission of the input signal to the 'reference nodes' 101, 102 *cannot* occur *before* measurement of the input signal is initiated at transistors 26 and 27," (Reh'g. Req. 5) (emphasis in original), because the activation of the sampling circuit admits the input signal to the reference node, which occurs before measurement of the input signal is also not persuasive.

As we stated in our opinion, the activation of Pilo's sampling circuit (i.e., inverters 36, 37, 38, and transmission gates 40, 43, and 52) occurs at a predetermined interval (i.e., predetermined component delays) before measurement of the input signal is initiated (i.e., measurement of the input signals MUXLAT and MUXLAT\* is initiated at transistors 26 and 27) (*see Findings of Fact 4-7 as presented in our opinion*). In other words, the activation of the sampling circuit (i.e., inverters 36, 37, 38, and transmission gates 40, 43, and 52) admits the input signal to the reference node (i.e., reference nodes 101 and 102), which occurs before measurement of the input signal (i.e., at transistors 26 and 27).

Therefore, based on the foregoing discussion, we remain of the opinion that we appropriately affirmed the Examiner's rejection of the claims. Appellants' request for rehearing has been granted to the extent that our decision has been reconsidered, but such a request is denied with respect to making any modifications to the decision.

Appeal 2008-2836  
Application 10/795,825

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R § 1.136(a)(1)(iv).

**REHEARING DENIED**

KIS

MCANDREWS HELD & MALLOY, LTD.  
500 WEST MADISON STREET  
SUITE 3400  
CHICAGO, IL 60661